



436292

## DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

INDIANAPOLIS

OFFICE MEMORANDUM

Date: January 7, 1993

To: RCRA File

Thru: David K. Harrison *DKH/JW*From: Richard H. Childers, Jr. *RHC*  
Chemical Evaluation Section

See Film Roll

Subject: Groundwater Monitoring Analytical Results for Gary Development  
Gary, Lake County, Indiana  
Collected on July 31, 1990; Samples TK2512 - TK2516  
Analyzed by ARDL, Inc.*37*  
For Attachments

I have reviewed the attached analytical results and have determined that they are partially acceptable for use. These results have been evaluated for the quality criteria contained in the Indiana Quality Assurance Project Plan. Any qualifications to the acceptance of these results will be identified in this memorandum. This memorandum should remain attached to the original results.

## Sampling Quality Assurance/Quality Control:

The field duplicate samples are used to establish the representativeness of the field sampling (i.e., the homogeneity in the well and sampling variability). The field duplicates are in agreement for those parameters which could be evaluated.

The field blanks (trip and equipment) are used to determine sample contamination due to field sampling equipment, sample containers, and preservatives. There was no contamination indicated in the field blank results for those parameters which could be evaluated.

## Laboratory Quality Assurance/Quality Control:

The pesticide and polychlorinated biphenyl (PCB) analysis calibration was out-of-control. The pesticide and PCB results are not useable. The sodium analysis had no matrix spike sample analyzed. The total organic carbon (TOC) analysis had no matrix spike sample analyzed. The sulfide matrix spike analysis was out-of-control (bias high). The sodium, TOC, and sulfide results, including detection limits, are estimated and for that reason are not acceptable for use in an enforcement action. All other parameters are acceptable for use.

The following comments are for the acceptable parameters only.

**Primary Water Limits:**

There were no elevated levels for the primary water limits.

**Secondary Water Limits:**

The iron levels were elevated in all of the wells. The manganese levels were elevated in two (2) wells. The total dissolved solid levels were elevated in all of the wells.

**Other Parameters of Interest:**

The total solids and specific conductance levels were elevated in all of the wells.

**Organic Compound Levels:**

There were no significantly elevated levels of organic compounds present.

The interim primary and secondary drinking water levels (SDWA) exceeded are highlighted on the attached summary sheets. The primary standards refer to the parameters of arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, endrin, lindane, methoxychlor, and toxaphene. The secondary standards are chloride, iron, manganese, pH, sulfate, and total dissolved solids. Other parameters of interest are also highlighted.

**Attachment**

cc: Karyl Schmidt



# PRIMARY DRINKING WATER STANDARDS

Site Name: Gary Development Location: Lake County  
Date Sampled 7/31/90 Date Reported: 8/30/90 Lab: AROL

**.NOT A REPORT - CHEMICAL EVALUATION WORKSHEET ONLY / REFER TO ATTACHED MEMO**

Empty Box indicates NON-DETECTABLE

• => Trip / Equip Blank (Type)

: => Field Duplicate

Signed:

NR = > Not Run

Date: 1, 6, 93



# **SECONDARY DRINKING WATER STANDARDS**

**(SHEET #1)**

Site Name: Gary Development Location: Lake County  
Date Sampled: 7/31/90 Date Reported: 8/30/90 Lab: APRI

**NOT A REPORT - CHEMICAL EVALUATION WORKSHEET ONLY - REFER TO ATTACHED MEMO**

**Empty Box indicates NON-DETECTABLE**

- => Trip/Equip Blank (Type)
  - => Field Duplicate

Signed:

**NR=> Not Run**

Date: 1 / 6 / 53



# **SECONDARY DRINKING WATER STANDARDS**

**(SHEET #2)**

Site Name: Gary Development Location: Lake County  
Date Sampled: 7/31/90 Date Reported: 8/30/90 Lab: AROL

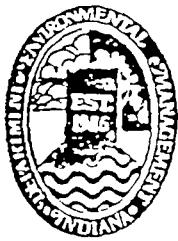
~~empty Box indicates NON-DETECTABLE~~

- => Trip/Equip Blank (Type)
  - => Field Duplicate

Signed:

**NR = > Not Run**

Date: 1-6-1983



# VOLATILE ORGANIC COMPOUNDS

Site Name: Gary Development Location: Lake County  
Date Sampled: 7, 31, 90 Date Reported: 8, 30, 90 Lab: AROL

**Empty Box indicates NON-DETECTABLE**

- => Trip/Equip Blank (Type)
  - => Field Duplicate

Signed:

**NR => Not Run**

Date: 1/6/93



# SEMI-VOLATILE ORGANIC COMPOUNDS

Site Name: Gary Development Location: Lake County  
Date Sampled: 7, 31, 90 Date Reported: 8, 30, 90 Lab: AR02

**NOT A REPORT - CHEMICAL EVALUATION WORKSHEET ONLY - REFER TO ATTACHED MEMO**

**Empty Box indicates NON-DETECTABLE**

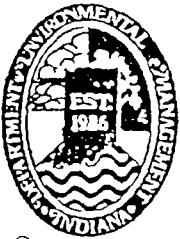
• => Trip/Equip Blank (Type)

$\Rightarrow$  Field Distortion

Signed:

**NR = > Not Run**

Date: 1-16-93



# PESTICIDE & PCB COMPOUNDS

Site Name: Gary Development Location: Lake County  
Date Sampled: 7/31/90 Date Reported: 8/30/90 Lab: AROIL

**NOT A REPORT - CHEMICAL EVALUATION WORKSHEET ONLY - REFER TO ATTACHED MEMO**

Empty Box indicates NON-DETECTABLE

• => Trip / Equip Blank (Type)

$\tilde{\psi} \Rightarrow$  Field Duplicate

Signed:

**NR=> Not Run**

Date: 1/6/93

Page 1 of 12  
Sample Date 7/31/90  
Site GARY DEVELOPMENT  
County LAKE

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT

GROUNDWATER MONITORING SITE INFORMATION SHEET

Control #s TK2512 - TK2516 Site Contact LARRY HAGEN Tasks 1-7  
Site Location (city first): GARY DEVELOPMENT CO.  
Weather Conditions: Sky CLEAR Ground DRY Wind LIGHT Temp 78° F Humidity LIGHT  
Collector(s): CHRIS MYER, JOE WOODS Laboratory ARNOL

Containers	Total #	Preservatives	ml/L	Lot #
1 liter plastic	<u>20</u>	50% H <sub>2</sub> SO <sub>4</sub>	2	<u>LMS</u>
1 liter glass	<u>32</u>	HNO <sub>3</sub>	5	
40 ml vials	<u>10</u>	50% NaOH	1	
250 ml glass		2N Zn Acetate	2	
		HCl		
		Samples Iced	2-5 drops	
				Samples Unpreserved

Sampling Plan: (grab/composite); Used (facility/consultant/D.E.M.) equipment  
Purged by: (facility/consultant/D.E.M.) personnel  
with: Pump - type SP84 KECR S46MERS size 1.5"  
make KELK SP84 tubing TEFLON  
Bailer - (PVC/SS/Teflon/ ) rope material POLYPROPYLENE  
diameter 1.5" length 2' capacity 500 ml

Filtered by: (facility/consultant/D.E.M.) personnel. MASTERFLEX  
Filtration Method: (gravity/vacuum/pressure); Device type PERISTALTIC PUMP.  
Filter (cartridge/paper) type GEO., size 1/4", pore .45  
FF 6200 CAP.

Hydrolab -or- pH meter type \_\_\_\_\_, S.C. meter type hydrolab  
Equipment is (dedicated decontaminated) with DECONTAMINATED WATER KS  
Source of: blank water FSBH, decon. water FSBH  
Photos taken (yes/no) \_\_\_\_\_

MISCELLANEOUS

For Enforcement? (YES/NO/UKN) Handling Precautions? (YES/NO/UKN)

PROGRAM AREA: RCRA CERCLA SOLID WASTE OTHER \_\_\_\_\_

Approximate Concentration (Worst case):

10 ppm

100 ppm

1000 ppm

5%

10%

15%

Notes:

CCW

0093c  
8/20/87

Field Sheets checked by KS 4-16-91

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT

SAMPLE COLLECTION PLANNING

Facility Name	GARY DEVELOPMENT C.O.			Location	GARY	Sample Collector(s)	K. MYER, J. WOODS
Telephone Number				State I.D. Number	Q77005916	Contact Person	LARRY HAGEN
Specific Site to be Sampled	MONITORING WELLS						
Purpose	<input type="checkbox"/> Complaint	<input type="checkbox"/> Compliance	<input type="checkbox"/> Enforcement				
Program	<input checked="" type="checkbox"/> RCRA	<input type="checkbox"/> CERCLA	<input type="checkbox"/> Solid Waste	<input type="checkbox"/> Other			
Type	<input type="checkbox"/> Sludge	<input type="checkbox"/> Aqueous	<input type="checkbox"/> Liquid	<input type="checkbox"/> Solid	<input type="checkbox"/> Grab	<input type="checkbox"/> Composite	<input type="checkbox"/> Other
Number of Samples	<input type="checkbox"/> 1-4	<input type="checkbox"/> 5-8	4 wells, 1 dup blank				
Container Types	<input checked="" type="checkbox"/> Plastic Quarts # 24			Glass Quarts # 10	40 ML vials # 17	<input type="checkbox"/> Pints Jars #	
Container Preparation	<input type="checkbox"/> Solvent rinsed					<input type="checkbox"/> Other	
Analyses Expected	<input type="checkbox"/> Flash Point	<input type="checkbox"/> EP Toxic	<input checked="" type="checkbox"/> Total Metals	<input checked="" type="checkbox"/> Volatile Organics	<input checked="" type="checkbox"/> Semi-Volatile Organics		
	<input checked="" type="checkbox"/> Cyanide	<input checked="" type="checkbox"/> PCB	<input checked="" type="checkbox"/> Others	TOC, SC, TDS, pH, S			
Duplicates to be collected	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/> Preservatives Required	<input checked="" type="checkbox"/> Blanks	Tr/PE, 1/1	
Places of Sampling	<input type="checkbox"/> Drummed Waste	<input type="checkbox"/> Bags, cans etc.	<input type="checkbox"/> Storage Tank	<input type="checkbox"/> Vacuum Truck			<input type="checkbox"/> Waste Pile
	<input type="checkbox"/> Lagoon Sludge	<input type="checkbox"/> Pond	<input type="checkbox"/> Soil	<input checked="" type="checkbox"/> Other	MONITORING WELLS		
Sampling Eq. Needed	<input type="checkbox"/> Coliwasa	<input type="checkbox"/> Glass Tube	<input type="checkbox"/> Bacon Bomb	<input type="checkbox"/> Ponar Dredge	<input type="checkbox"/> Trowel	<input type="checkbox"/> Trier	<input type="checkbox"/> Auger
	<input type="checkbox"/> Pond Sampler	<input type="checkbox"/> Dipper	<input type="checkbox"/> Peristaltiz Pump	<input type="checkbox"/> Spade/Scoop	<input type="checkbox"/> Submersible Pump	<input type="checkbox"/> Well Wizard	
Supplies Needed	<input checked="" type="checkbox"/> Paper Towels	<input type="checkbox"/> Pens	<input checked="" type="checkbox"/> Large Poly Bags	<input type="checkbox"/> Field Log Books	<input checked="" type="checkbox"/> Rule	<input checked="" type="checkbox"/> Receipts	
	<input checked="" type="checkbox"/> Sample Labels	<input type="checkbox"/> Sample Seals	<input type="checkbox"/> Sample Analysis Request Sheets	<input checked="" type="checkbox"/> Chain of Custody Records			
	<input checked="" type="checkbox"/> Waste Containers	<input type="checkbox"/> Decontamination Sprayer	<input checked="" type="checkbox"/> Solvents (for cleaning)	<input checked="" type="checkbox"/> Soap			
	<input checked="" type="checkbox"/> Wash Tub	<input type="checkbox"/> Cleaning Water	<input checked="" type="checkbox"/> Tools	<input checked="" type="checkbox"/> Coolers	<input checked="" type="checkbox"/> Ice	<input checked="" type="checkbox"/> Preservatives	<input type="checkbox"/> Camera
Preliminary Estimates of Concentration Available?	<input type="checkbox"/> YES			<input checked="" type="checkbox"/> NO	If answer is YES, list concentrations on a separate sheet.		
Sampling Strategies	<input checked="" type="checkbox"/> Statistical Sampling	<input type="checkbox"/> Other					
Type of Statistical Sampling	<input checked="" type="checkbox"/> Sample Random Sampling	<input type="checkbox"/> Stratified Random Sampling	<input type="checkbox"/> Systematic Random Sampling				
Safety Equipment Required	<input type="checkbox"/> Disposable Suit	<input checked="" type="checkbox"/> Hard Hat	<input checked="" type="checkbox"/> Gloves	<input checked="" type="checkbox"/> Boots	<input type="checkbox"/> Coveralls	<input type="checkbox"/> Eye Protection	
	<input type="checkbox"/> Respirator	<input type="checkbox"/> Explosiometer	<input type="checkbox"/> Self Contained Breathing Apparatus	<input type="checkbox"/> HNU Meter			
	<input checked="" type="checkbox"/> Fire Extinguisher	<input checked="" type="checkbox"/> Portable Eyewash	<input checked="" type="checkbox"/> Ear Protection	<input type="checkbox"/> Other			
Expected Delivery To Lab:	8/11/90						
To Be Delivered to:	APOL			Address	1801 W FOREST MT. VERNON	Delivery Hours	8-5
Hazards - Samples May Be	<input type="checkbox"/> Toxic	<input type="checkbox"/> Ignitable	<input type="checkbox"/> Reactive	<input type="checkbox"/> Concentrated		Phone	618-244-2235
Description of Site	use maps and attachments as necessary			UNKNOWN			
Process Producing Waste and Expected Hazardous Constituents							

C. R. Myer, J. Woods DATE: 6/21/90

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT  
LABORATORY ANALYSIS REQUEST FORM

Date Delivered 8/11/90Control Numbers TK2512-TK2516

Laboratory Numbers \_\_\_\_\_

To request an entire task, circle task label; to request individual parameters within a task, place an X in the appropriate box.

TASK 1	T	*	Result
Arsenic		0.010 mg/L	
Barium		0.050 mg/L	
Cadmium		0.005 mg/L	
Chromium		0.010 mg/L	
Lead		0.010 mg/L	
Mercury		0.0005 mg/L	
Nickel		0.010 mg/L	
Selenium		0.005 mg/L	
Silver		0.010 mg/L	

TASK 2	X	*	Result
Chloride		1.0 mg/L	
Iron		0.10 mg/L	
Manganese		0.01 mg/L	
Phenols		.005 mg/L	
Sodium		1.0 mg/L	
Sulfate		5.0 mg/L	

TASK 3	X	*	Result
pH (D002)		0.1 units	
Spec Cond		5.0 umho	
TOC		3.0 mg/L	
TOX		0.05 mg/L	
Total Solids		10 mg/L	
Diss. Solids		10 mg/L	

TASK 4	X	*	Result
Total Cyanide		0.005 mg/L	
Total Sulfide		1.0 mg/L	

MISCELLANEOUS	X	*	Result
Oil & Grease		0.1 mg/L	
COD		5 mg/L	
BTU		3000 BTU	

TASK 3 VOLATILE ORGANICS (VOA)

TASK 5 SEMI-VOLATILES (SVOA)

TASK 7 PCB-PESTICIDES

Task 8	X	*	Result
Calcium		0.10 mg/L	
Potassium		0.10 mg/L	
Magnesium		0.03 mg/L	
Hardness(T)		mg/L	
Alkalinity		10.0 mg/L	
Nitrate-N		0.05 mg/L	

See ORGANIC ANALYSIS I & II forms  
for a list of organics to be  
analyzed.

T = Total (metals)

\* = Contract Required  
Detection Limits (CRDL)

Approximate concentrations:  
(Worst Case):

10 ppm      100 ppm      1000 ppm  
5%            10%            15%

Turn-Around Required

30 day

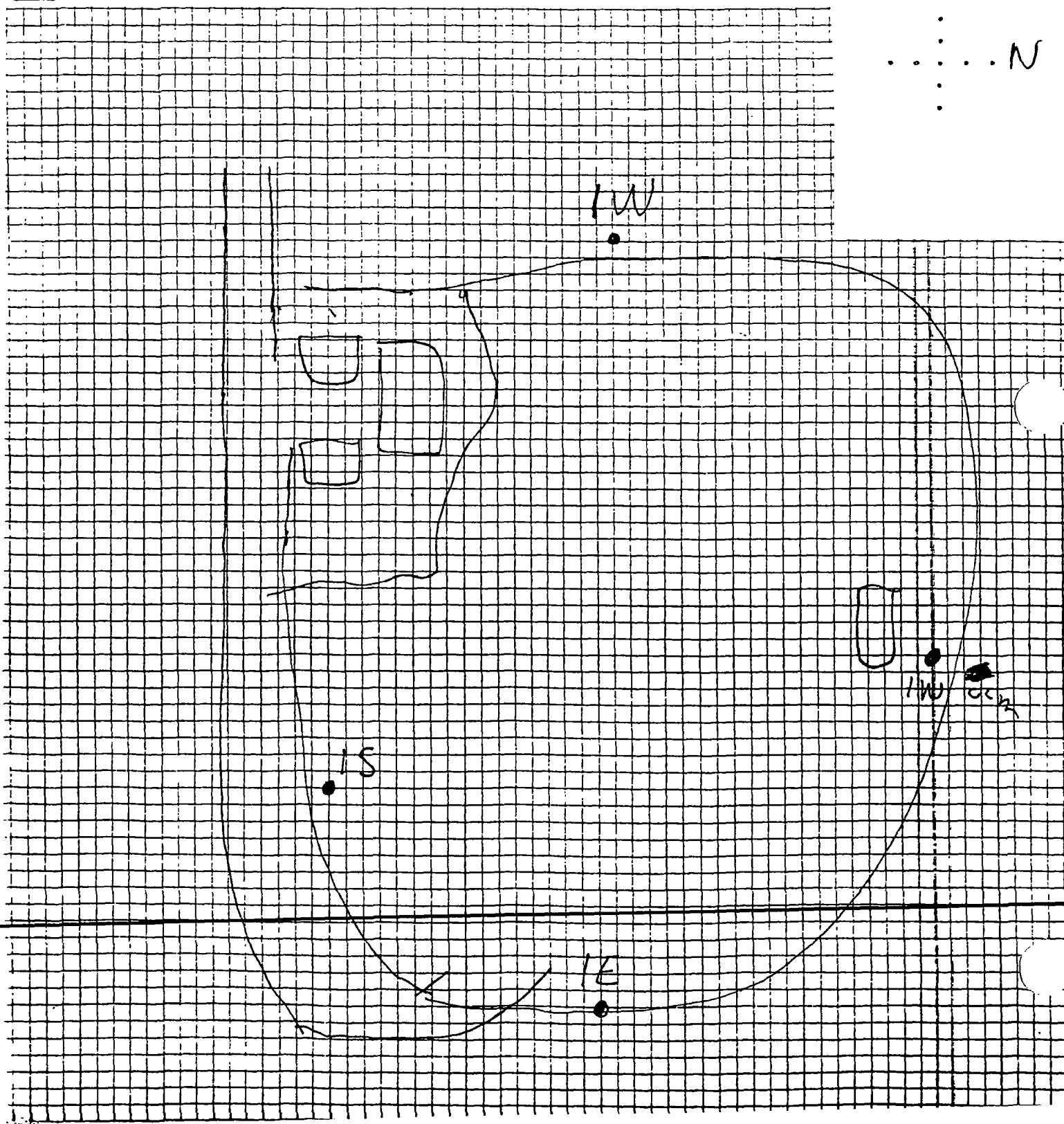
14 day

7 day

2 day

QAQ (signature) 

MAP:





## SAMPLE RECEIPT FORM

State Form 42092 (1-88)

Indiana Department of Environmental Management

EPA ID Number

IND

077 005 916

5 of 12

Site

GARY DEVELOPMENT COMPANY INC.

Address (Street or Rural Route)

479 N CLINE AVE (City) GARY (State) IN (ZIP Code) 46406

Date

7-31-90

Description of Samples

GROUND WATER SAMPLES

SPLIT SAMPLES REQUESTED?

YES

NO

SPLIT SAMPLES ACCEPTED? (State does not supply the containers)

YES

NO

Permission granted by and copies to be sent to:

DR. LARRY HAGEN, GARY DEVELOPMENT CO. INC

Address (Street or Rural Route)

479 N. CLINE AVE GARY (City) (State) IN (ZIP Code) 46406

Phone Number

Area Code ( )

Signature

Date

IDEM Representative Initials

CLM

Date

7-31-90

DISTRIBUTION: YELLOW COPY - FILE, PINK COPY - SITE CONTACT



## **SAMPLE CUSTODY CHAIN**

State Form 42091 (1-88)

**INDIANA DEPARTMENT OF ENVIRONMENTAL  
MANAGEMENT**  
**OFFICE OF SOLID AND HAZARDOUS  
WASTE MANAGEMENT**

704 12  
ENVIRONMENTAL

I certify the following samples were collected by me or in my presence

**Signature**

Hans L. Muer

MAXIMUM AND MINIMUM TEMPERATURES DURING COLLECTION AND TRANSPORT: MAX 78°  
MIN 18°

**TEMPERATURE OF SAMPLE AT EXCHANGE OF CUSTODY:**

## **TRANSFER OF CUSTODY**

I certify that I received the above samples.

**Bellmawr by: (Signature)**

Received by: (Signature)

TITLE	DATE	TIME	TITLE	DATE	TIME
		AM / PM	Technician	1/1/10	13:50 AM / PM
Relinquished by: (Signature)			Received by: (Signature)		
TITLE	DATE	TIME	TITLE	DATE	TIME
		AM / PM			AM / PM
Relinquished by: (Signature)			Received by: (Signature)		
TITLE	DATE	TIME	TITLE	DATE	TIME
		AM / PM			AM / PM

## **LABORATORY RECEIPT OF SAMPLES**

I certify that I received the above Samples. After recording these samples into the official logbook, they will remain in the custody of competent lab personnel or be secured in a locked area at all times.

**Signature**

## Laboratory

Date

Time

AM / PM

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT  
SAMPLE SHEET

Sample I.D. Blanks K's DEM/OSHWM Control # JK2512

Field Tests

<u>Test</u>	<u>Result</u>
Temperature	<u>41</u> °C
pH	<u>7</u>
Spec. Cond.	<u>umhos</u>

Sample type

Mon. well  
Res. Well  
Duplicate of \_\_\_\_\_  
Split  
Blank (field/trip/equip.)

Preservatives Lot #

Lab EMS  
HNO<sub>3</sub> \_\_\_\_\_  
H<sub>2</sub>SO<sub>4</sub> \_\_\_\_\_  
NAOH \_\_\_\_\_  
Zn-Acetate \_\_\_\_\_  
HCl \_\_\_\_\_

Sample Date 7/30/90 1L:55 AM PM equip 12:15 pm 7-31-90

Containers

	<u>#</u>
1 liter plastic	<u>1</u>
1 liter glass	<u>2</u>
40 ml vials	<u>2</u>
250 ml glass	_____
500 ml glass	_____
	_____
	_____

Monitoring Well Data

Well I.D.  
Reference point on (steel/plastic)  
casing top  
Casing Stick-up  
Depth to Water  
Well Material (PVC/SS/Teflon)  
Total Well Depth  
Inside Diameter (1 2 4 6) inch  
Time to recharge one well volume -  
-within 1 4 8 24 48 or G.T. 48 hrs

Were METALS filtered prior to preservation? (Yes No)

Color of water subsequent to filtration clear

Deviations from Sampling Plan

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Other Observations

Water Appearance (clear slightly/very turbid) (color: gray/brown)  
Well purged (less/greater) than (1 2 4 6 12 24 48) hours prior to sampling  
Purged approx. (to dryness) / (1 2 3 4 5 8 10 G.T. 10 well volumes)  
Reaction upon addition of preservatives? (YES/NO) (explain) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT  
SAMPLE SHEET

Sample I.D. 15 DEM/OSHWM Control #JK2513

Field Tests		Sample type	Preservatives	Lot #
<u>Test</u>	<u>Result</u>	Mon. well Res. Well Duplicate of _____ Split	Lab EMS HNO <sub>3</sub> H <sub>2</sub> SO <sub>4</sub> NAOH Zn-Acetate	
Temperature	18.0°C			
pH	6.4			
Spec. Cond.	305 umhos	(Q201K) Blank(field/trip/equip.)		
			HCL	

Sample Date 7/31/98 9:15 AM PM

<u>Containers</u>	#
1 liter plastic	4
1 liter glass	10
40 ml vials	5
250 ml glass	
500 ml glass	

Monitoring Well Data

Well I.D. 15

Reference point on (steel/plastic)  
casing top

Casing Stick-up 5.56

Depth to Water 10.15' lln

Well Material (PVC/SS/Teflon)

Total Well Depth ~~15.56~~ 20.00'

Inside Diameter (1 2/4 6) inch

Time to recharge one well volume -  
-within 1/4 8 24 48 or G.T. 48 hrs

Were METALS filtered prior to preservation? Yes  No   
Color of water subsequent to filtration *clear*

## Deviations from Sampling Plan

#### **Other Observations**

Water Appearance (slightly/very turbid) (color: gray/brown)  
Well purged (less/greater) than (1 2 4 6 12 24 48) hours prior to sampling  
Purged approx. (to dryness) / (1 2 3 4 5 8 10 G.T. 10 well volumes)  
Reaction upon addition of preservatives? (YES NO) (explain)

Rev: 0093c  
08/20/87

Signature Chris L. Myer  
Date 7-31-90

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT  
SAMPLE SHEET

Sample I.D. 15 DEM/OSHWM Control # TK2514

<u>Field Tests</u>	<u>Sample type</u>	<u>Preservatives</u>	<u>Lot #</u>
<u>Test</u>	<u>Result</u>		
Temperature	<u>18.2°C</u>	Mon. well	Lab <u>EM5</u>
pH	<u>6.7</u>	Res. Well	HNO <sub>3</sub> <u>T</u>
Spec. Cond.	<u>299</u> umhos/cm (Blank(field/trip/equip.))	Duplicate of <u>TK2513</u>	H <sub>2</sub> SO <sub>4</sub> <u>T</u>
		Split	NAOH <u>T</u>
			Zn-Acetate <u>TCLV</u>

Sample Date 7/31/90 9:20 AM PM

<u>Containers</u>	<u>#</u>
1 liter plastic	<u>4</u>
1 liter glass	<u>X5</u> cm
40 ml vials	<u>2</u>
250 ml glass	<u> </u>
500 ml glass	<u> </u>
	<u> </u>
	<u> </u>
	<u> </u>

<u>Monitoring Well Data</u>
Well I.D. <u>15</u>
Reference point on (steel/plastic) <u>casing top</u>
Casing Stick-up <u>S.56</u>
Depth to Water <u>10.15</u>
Well Material (PVC/SS/Teflon)
Total Well Depth <u>20.00</u>
Inside Diameter (1 <u>2.4</u> ) inch
Time to recharge one well volume - -within <u>P 8 24 48 or G.T. 48 hrs</u>

Were METALS filtered prior to preservation? (Yes   No  )  
 Color of water subsequent to filtration clear

Deviations from Sampling Plan

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Other Observations

Water Appearance (clear slightly/very turbid) (color: gray/brown)  
 Well purged less/greater than 1 2 4 6 12 24 48 hours prior to sampling  
 Purged approx. (to dryness) / (1 2 3 4 5 8 10 G.T. 10 well volumes)  
 Reaction upon addition of preservatives? (YES   NO  ) (explain) black

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT  
SAMPLE SHEET

Sample I.D. 1E DEM/OSHWM Control # R2515

<u>Field Tests</u>		<u>Sample type</u>	<u>Preservatives</u>	<u>Lot #</u>
<u>Test</u>	<u>Result</u>			
Temperature	16.3 °C	Morn. well	Lab	<u>EM5</u>
pH	6.9	Res. Well	HNO <sub>3</sub>	
Spec. Cond.	1838 umhos	Duplicate of _____	H <sub>2</sub> SO <sub>4</sub>	
		Split	NAOH	
		Blank (field/trip/equip.)	Zn-Acetate	
			HCl	

Sample Date 7/31/90 10:35 AM PM

<u>Containers</u>	#
1 liter plastic	<u>4</u>
1 liter glass	<u>5</u>
40 ml vials	<u>2</u>
250 ml glass	<u>1</u>
500 ml glass	<u>1</u>
	<u>1</u>
	<u>1</u>
	<u>1</u>

Monitoring Well Data  
 Well I.D. 1E  
 Reference point on (steel/plastic) casing top  
 Casing Stick-up 73'  
 Depth to Water 16.15'  
 Well Material (PVC/SS/Teflon)  
 Total Well Depth 18.25'  
 Inside Diameter (1 2 4 6 ) inch  
 Time to recharge one well volume -  
 -within 4 8 24 48 or G.T. 48 hrs  
1 min

Were METALS filtered prior to preservation? (Yes) Yes (No) No  
 Color of water subsequent to filtration Clear

Deviations from Sampling Plan

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Other Observations

Strong decaying garbage odor black

Water Appearance (clear slightly/very turbid) (color: gray/brown)

Well purged (less/greater) than (1 2 4 6 12 24 48) hours prior to sampling

Purged approx. (to dryness) / (1 2 3 4 5 8 10 G.T. 10 well volumes)

Reaction upon addition of preservatives? (YES/NO) NO (explain)

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12 12  
Page 2 of 2 C.C.  
Site GARY  
DEVELOPMENT  
C.C.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT  
SAMPLE SHEET

IN C.C. Sample I.D. DEM/OSHWM Control #7K2516

Field Tests		Sample type	Preservatives	Lot #
Test	Result		Lab	E m S
Temperature	67 °C	Mon. well	HNO <sub>3</sub>	
pH	6.7	Res. Well	H <sub>2</sub> SO <sub>4</sub>	
Spec. Cond.	384 umhos/cm <sup>2</sup>	Duplicate of _____	NAOH	
		Split	Zn-Acetate	
		Blank(field/trip/equip.)	HCl	

Sample Date 7/31/90 12:00 AM PM

Containers #  
1 liter plastic 9  
1 liter glass 6  
40 ml vials \_\_\_\_\_  
250 ml glass \_\_\_\_\_  
500 ml glass \_\_\_\_\_  
\_\_\_\_\_

Monitoring Well Data  
Well I.D. 7-11  
Reference point on (steel/plastic) casing top  
casing Stick-up 3.07 ft  
Depth to Water 13.75 ft  
Well Material (PVC) SS/Teflon  
Total Well Depth 17.95 ft  
Inside Diameter (1 2 4 6) inch  
Time to recharge one well volume -  
-within 1 4 8 24 48 or G.T. 48 hrs

Were METALS filtered prior to preservation? (Yes no)  
Color of water subsequent to filtration clear

Deviations from Sampling Plan

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Other Observations

Water Appearance (clear slightly very turbid) (color: gray/brown)  
Well purged (less greater) than 1 2 4 6 12 24 48 hours prior to sampling  
Purged approx. (to dryness) / (1 2 3 4 5 8 10 G.T. 10 well volumes)  
Reaction upon addition of preservatives? (YES/NO) Ks (explain)

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT  
 LABORATORY ANALYSIS REQUEST FORM

Date Delivered \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Control Numbers \_\_\_\_\_ - \_\_\_\_\_

Laboratory Numbers \_\_\_\_\_

To request an entire task, circle task label; to request individual parameters within a task, place an X in the appropriate box.

TASK 1	T	*	Result
Arsenic		0.010 mg/L	
Barium		0.050 mg/L	
Cadmium		0.005 mg/L	
Chromium		0.010 mg/L	
Lead		0.010 mg/L	
Mercury		0.0005 mg/L	
Nickel		0.010 mg/L	
Selenium		0.005 mg/L	
Silver	/	0.010 mg/L	

TASK 3 VOLATILE ORGANICS (VOA)

TASK 6 SEMI-VOLATILES (SVOA)

TASK 7 PCB-PESTICIDES

TASK 2	X	*	Result
Chloride		1.0 mg/L	
Iron		0.10 mg/L	
Manganese		0.01 mg/L	
Phenols		.005 mg/L	
Sodium		1.0 mg/L	
Sulfate		5.0 mg/L	

Task 8	X	*	Result
Calcium		0.10 mg/L	
Potassium		0.10 mg/L	
Magnesium		0.03 mg/L	
Hardness(T)		mg/L	
Alkalinity		10.0 mg/L	
Nitrate-N		0.05 mg/L	

TASK 3	X	*	Result
pH (0002)		0.1 units	
Spec Cond		5.0 umho	
TOC		3.0 mg/L	
TOX		0.05 mg/L	
Total Solids		10 mg/L	
Diss. Solids		10 mg/L	

See ORGANIC ANALYSIS I & II forms  
 for a list of organics to be  
 analyzed.

T = Total (metals)

\* = Contract Required  
 Detection Limits (CRDL)

Approximate concentrations:  
 (Worst Case):

10 ppm      100 ppm      1000 ppm  
 5%            10%            15%

Turn-Around Required

30 day

14 day

7 day

2 day

QAQ (signature) 

MISCELLANEOUS	X	*	Result
Oil & Grease		0.1 mg/L	
COD		5 mg/L	
BTU		3000 BTU	



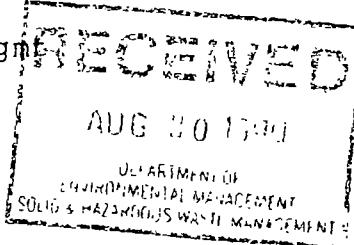
applied research & development laboratory

CHEMISTRY • BIOLOGY • PHYSIOLOGY  
ENGINEERING • ENVIRONMENTAL ANALYSIS

29 August 1990

Mr. David Harrison  
Indiana Dept. of Environmental Mgmt.  
105 S. Meridian Street  
P. O. Box 6015  
Indianapolis, IN 46241

SUBJECT: Data Package  
ARDL ID: 1062  
IDEM Samples: TK2512-TK2516



Dear Mr. Harrison:

Enclosed please find ARDL's final data package for analyses performed on samples delivered to our laboratory on 8/01/90. The data package consists of the following:

1. Letter of Transmittal
2. Tabulated Analytical Results - unbound copies of sample results are submitted separately for immediate use.
3. Chain-of-Custody Documentation - the original signed sheets are submitted.
4. Data Package - paginated and submitted in the following order:
  - a. Volume 1 - Inorganic Data Package
  - b. Volume 2 - Organic Sample Data Summary Package
  - c. Volume 3 - Volatiles Analysis Data Package
  - d. Volume 4 - Semi-Volatiles Analysis Data Package
  - e. Volume 5 - Pesticide/PCB Analysis Data Package

The basis for the order submitted above is USEPA CLP protocol with modifications in submitting copies of the tabulated results and chain-of-custody documentation separately.

If you have any questions regarding this package, please contact the undersigned at (618) 244-3235.

ARDL, Inc.

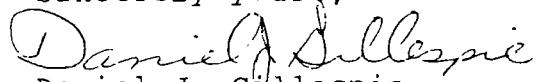
Mt. Vernon, Illinois

Mr. David Harrison  
29 August 1990  
Page 2 of 2

We appreciate the opportunity to be of service to the IDEM.

Thank you.

Sincerely yours,

  
Daniel J. Gillespie  
Technical Services Manager

DJG/jcm

**FORM IA**

INORGANIC ANALYSIS DATA SHEET  
METALS

Lab Name ARDL, Inc. IDEM Sample No. TK2512

Matrix (soil/water) Water Lab Sample ID: 1062-1

Level (low/med): \_\_\_\_\_ Date Received: \_\_\_\_\_ 8-1-90

% Solids: \_\_\_\_\_

Date Received: 8-1-90

Concentration Units ( $\mu\text{g/L}$  or  $\text{mg/kg}$  dry weight)  $\mu\text{g/l}$

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum			P	
7440-36-0	Antimony			P	
7440-38-2	Arsenic	5.0	u	BH	
7440-39-3	Barium	50	u	P	
7440-41-7	Beryllium			P	
7440-43-9	Cadmium	5.0	u	P	
7440-70-2	Calcium			P	
7440-47-3	Chromium	10	u	P	
7440-48-4	Cobalt			P	
7440-50-8	Copper			P	
7439-89-6	Iron	50	u	P	
7439-92-1	Lead	5.0	u	P	
7439-95-4	Magnesium			P	
7439-96-5	Manganese	14		P	
7439-97-6	Mercury	0.20	u	CV	
7440-02-0	Nickel	10	u	P	
7440-09-7	Potassium			P	
7782-49-2	Selenium	5.0	u	BH	
7440-22-4	Silver	20		P	
7440-23-5	Sodium	500	u	P	
7440-28-0	Thallium			F	
7440-62-2	Vanadium			P	
7440-66-6	Zinc			P	

**Color Before:** **Clarity Before:** **Texture:**

**Color After:** **Clarity After:** **Artifacts:**

**FORM IB**

INORGANIC ANALYSIS DATA SHEET  
OTHER INORGANICS

Lab Name ARDL, Inc. IDEM Sample No. TK2512

IDEM Sample No. TK2512

Matrix (soil/water) Water Lab Sample ID: 1062-1

Lab Sample ID: 1062-1

Level (low/med): \_\_\_\_\_ Date Received: 8-1-90

Date Received: 8-1-90

% Solids: \_\_\_\_\_ Units: \_\_\_\_\_ ug/l

Units: ug/l

CAS No.	Analyte	Concentration	C	M	Q
	Cyanide	5.0	u		
	Phenol	9.0	u		
	Sulfate	5000	u		
	Sulfide	1000	u		N
	Chloride	1000	u		
	TOC	3000	u		
	TOX 1	30	u		
	TOX 2	30	u		
	TOX 3				
	pH	4.9			
	Spec. Cond.(1)	1.5			
	Total Solids	40000			
	Tot.Diss.Solids	16000			

COMMENTS: (1) umhos

### TOX 1: Sample

## TOX 2: Duplicate

TOX 3: Triplicate (if necessary)

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

**FORM IA**

INORGANIC ANALYSIS DATA SHEET  
METALS

Lab Name ARDL, Inc. IDEM Sample No. TK2513

Matrix (soil/water) Water Lab Sample ID: 1062-2

Level (low/med): \_\_\_\_\_ Date Received: \_\_\_\_\_ 8-1-90

% Solids: \_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight) ug/l

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum			P	
7440-36-0	Antimony			P	
7440-38-2	Arsenic	5.0	u	BH	
7440-39-3	Barium	50	u	P	
7440-41-7	Beryllium			P	
7440-43-9	Cadmium	5.0	u	P	
7440-70-2	Calcium			P	
7440-47-3	Chromium	10	u	P	
7440-48-4	Cobalt			P	
7440-50-8	Copper			P	
7439-89-6	Iron	21600		P	
7439-92-1	Lead	5.0	u	P	
7439-95-4	Magnesium			P	
7439-96-5	Manganese	1.1		P	
7439-97-6	Mercury	0.20	u	CV	
7440-02-0	Nickel	10	u	P	
7440-09-7	Potassium			P	
7782-49-2	Selenium	5.0	u	BH	
7440-22-4	Silver	10	u	P	
7440-23-5	Sodium	63000		P	
7440-28-0	Thallium			F	
7440-62-2	Vanadium			P	
7440-66-6	Zinc			P	

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

**FORM IB**

INORGANIC ANALYSIS DATA SHEET  
OTHER INORGANICS

Lab Name ARDL, Inc.

IDEM Sample No. TK2513

Matrix (soil/water) Water

Lab Sample ID: 1062-2

Level (low/med): \_\_\_\_\_

Date Received: 8-1-90

% Solids: \_\_\_\_\_

Units: ug/l

CAS No.	Analyte	Concentration	C	M	Q
	Cyanide	34			
	Phenol	9.0	u		
	Sulfate	1100000			
	Sulfide	3100			N
	Chloride	66000			
	TOC	26000			
	TOX 1	30	u		
	TOX 2	30	u		
	TOX 3				
	pH	7.4			
	Spec. Cond.(1)	3100			
	Total Solids	3600000			
	Tot. Diss. Solids	2600000			

COMMENTS: (1) umhos

## TOX 1: Sample

## TOX 2: Duplicate

TOX 3: Triplicate (if necessary)

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

**FORM IA**

INORGANIC ANALYSIS DATA SHEET  
METALS

Lab Name ARDL, Inc. IDEM Sample No. TK2514

Matrix (soil/water) Water Lab Sample ID: 1062-3

Level (low/med): \_\_\_\_\_ Date Received: \_\_\_\_\_ 8-1-90

% Solids: \_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight) ug/l

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum			P	
7440-36-0	Antimony			P	
7440-38-2	Arsenic	5.0	u	BH	
7440-39-3	Barium	50	u	P	
7440-41-7	Beryllium			P	
7440-43-9	Cadmium	5.0	u	P	
7440-70-2	Calcium			P	
7440-47-3	Chromium	10	u	P	
7440-48-4	Cobalt			P	
7440-50-8	Copper			P	
7439-89-6	Iron	19600		P	
7439-92-1	Lead	5.0	u	P	
7439-95-4	Magnesium			P	
7439-96-5	Manganese	1.1		P	
7439-97-6	Mercury	0.20	u	CV	
7440-02-0	Nickel	10	u	P	
7440-09-7	Potassium			P	
7782-49-2	Selenium	5.0	u	BH	
7440-22-4	Silver	27		P	
7440-23-5	Sodium	60000		P	
7440-28-0	Thallium			F	
7440-62-2	Vanadium			P	
7440-66-6	Zinc			P	

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: Clarity After: Artifacts:

## FORM IB

INORGANIC ANALYSIS DATA SHEET  
OTHER INORGANICSLab Name ARDL, Inc.IDEM Sample No. TK2514Matrix (soil/water) WaterLab Sample ID: 1062-3

Level (low/med): \_\_\_\_\_

Date Received: 8-1-90

% Solids: \_\_\_\_\_

Units: ug/l

CAS No.	Analyte	Concentration	C	M	Q
	Cyanide	40			
	Phenol				
	Sulfate	1100000			
	Sulfide	1000	u		N
	Chloride	66000			
	TOC				
	TOX 1	30	u		
	TOX 2	30	u		
	TOX 3				
	pH	7.4			
	Spec. Cond.(1)	3000			
	Total Solids	3800000			
	Tot. Diss. Solids	2500000			

COMMENTS: (1) umhos

TOX 1: Sample

TOX 2: Duplicate

TOX 3: Triplicate (if necessary)

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

**FORM IA**

INORGANIC ANALYSIS DATA SHEET  
METALS

Lab Name ARDL, Inc. IDEM Sample No. TK2515

Matrix (soil/water) Water Lab Sample ID: 1062-4

Level (low/med): \_\_\_\_\_ Date Received: \_\_\_\_\_ 8-1-90

% Solids: \_\_\_\_\_

Concentration Units ( $\mu\text{g/L}$  or  $\text{mg/kg}$  dry weight) ug/l

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum			P	
7440-36-0	Antimony			P	
7440-38-2	Arsenic	6.2		BH	
7440-39-3	Barium	590		P	
7440-41-7	Beryllium			P	
7440-43-9	Cadmium	5.0	u	P	
7440-70-2	Calcium			P	
7440-47-3	Chromium	10	u	P	
7440-48-4	Cobalt			P	
7440-50-8	Copper			P	
7439-89-6	Iron	1600		P	
7439-92-1	Lead	5.0	u	P	
7439-95-4	Magnesium			P	
7439-96-5	Manganese	130		P	
7439-97-6	Mercury	0.20	u	CV	
7440-02-0	Nickel	10	u	P	
7440-09-7	Potassium			P	
7782-49-2	Selenium	5.0	u	BH	
7440-22-4	Silver	23		P	
7440-23-5	Sodium	170000		P	
7440-28-0	Thallium			F	
7440-62-2	Vanadium			P	
7440-66-6	Zinc			P	

**Color Before:** **Clarity Before:** **Texture:**

Color After: Clarity After: Artifacts:

**FORM 1B**

INORGANIC ANALYSIS DATA SHEET  
OTHER INORGANICS

Lab Name ARDL, Inc.

IDEML Sample No. TK2515

Matrix (soil/water) Water

Lab Sample ID: 1062-4

Level (low/med): \_\_\_\_\_

Date Received: 8-1-90

% Solids: \_\_\_\_\_

Units: ug/l

CAS No.	Analyte	Concentration	C	M	Q
	Cyanide	5.0	u		
	Phenol	9.0	u		
	Sulfate	44000			
	Sulfide	10000			N
	Chloride	61000			
	TOC	21000			
	TOX 1	38			
	TOX 2	30	u		
	TOX 3				
	pH	7.6			
	Spec. Cond.(1)	2400			
	Total Solids	2800000			
	Tot. Diss. Solids	1200000			

COMMENTS: (1) umhos

## TOX 1: Sample

## TOX 2: Duplicate

TOX 3: Triplicate (if necessary)

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

FORM IA

INORGANIC ANALYSIS DATA SHEET  
METALS

Lab Name ARDL, Inc. IDEM Sample No. TK2516

Matrix (soil/water) Water Lab Sample ID: 1062-5

Level (low/med): \_\_\_\_\_ Date Received: \_\_\_\_\_ 8-1-90

% Solids: \_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight) ug/l

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum			P	
7440-36-0	Antimony			P	
7440-38-2	Arsenic	20		BH	
7440-39-3	Barium	78		P	
7440-41-7	Beryllium			P	
7440-43-9	Cadmium	5.0	u	P	
7440-70-2	Calcium			P	
7440-47-3	Chromium	10		P	
7440-48-4	Cobalt			P	
7440-50-8	Copper			P	
7439-89-6	Iron	22000		P	
7439-92-1	Lead	5.0	u	P	
7439-95-4	Magnesium			P	
7439-96-5	Manganese	590		P	
7439-97-6	Mercury	0.20	u	CV	
7440-02-0	Nickel	10	u	P	
7440-09-7	Potassium			P	
7782-49-2	Selenium	5.0	u	BH	
7440-22-4	Silver	22		P	
7440-23-5	Sodium	410000		P	
7440-28-0	Thallium			F	
7440-62-2	Vanadium			P	
7440-66-6	Zinc			P	

**Color Before:** **Clarity Before:** **Texture:**

Color After: Clarity After: Artifacts:

FORM IB

INORGANIC ANALYSIS DATA SHEET  
OTHER INORGANICS

Lab Name ARDL, Inc.

IDEML Sample No. TK2516

Matrix (soil/water) Water

Lab Sample ID: 1062-5

Level (low/med): \_\_\_\_\_

Date Received: 8-1-90

% Solids: \_\_\_\_\_

Units: ug/l

CAS No.	Analyte	Concentration	C	M	Q
	Cyanide	7.8			
	Phenol	130			
	Sulfate	490000			
	Sulfide	3100			N
	Chloride	74000			
	TOC	97000			
	TOX 1	230			
	TOX 2	280			
	TOX 3				
	pH	7.3			
	Spec. Cond.(1)	3800			
	Total Solids	2900000			
	Tot. Diss. Solids	2500000			

COMMENTS: (1) umhos

## TOX 1: Sample

## TOX 2: Duplicate

**TOX 3: TriPLICATE (if necessary)**

Color Before:

### Clarity Before:

### Texture:

Color After: \_\_\_\_\_

### Clarity After:

Artifacts: \_\_\_\_\_

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TK2512

Lab Name: ARDL, INC.

Contract: IDEM

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 1062-1

Sample wt/vol: 5.0 (g/ml) mL

Lab File ID: >H4123

Level: (low/med) LOW

Date Received: 08/01/90

% Moisture: not dec. ---

Date Analyzed: 08/11/90

Column: (pack/cap) PACK

Dilution Factor: 1.0

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/L

Q

74-87-3	Chloromethane	10	IU
74-83-9	Bromomethane	10	IU
75-01-4	Vinyl Chloride	10	IU
75-00-3	Chloroethane	10	IU
75-09-2	Methylene Chloride	8	I B
67-64-1	Acetone	10	IU
107-02-8	2-Propenal	10	IU
75-15-0	Carbon Disulfide	5	IU
107-13-1	Acrylonitrile	10	IU
75-69-4	Trichlorofluoromethane	5	IU
75-35-4	1,1-Dichloroethene	5	IU
75-34-3	1,1-Dichloroethane	5	IU
109-99-9	Tetrahydrofuran	10	IU
540-59-0	trans-1,2-Dichloroethene	5	IU
67-66-3	Chloroform	5	IU
76-13-1	1,1,2-Trichlorotrifluoroethane	3	IJB
107-06-2	1,2-Dichloroethane	5	IU
78-93-3	2-Butanone	10	IU
60-29-7	Ethyl Ether	5	IU
71-55-6	1,1,1-Trichloroethane	5	IU
56-23-5	Carbon Tetrachloride	5	IU
141-78-6	Ethyl Acetate	10	IU
108-05-4	Vinyl Acetate	10	IU
75-27-4	Bromodichloromethane	5	IU
78-87-5	1,2-Dichloropropane	5	IU
10061-01-5	cis-1,3-Dichloropropene	5	IU
79-01-6	Trichloroethene	5	IU
124-48-1	Dibromochloromethane	5	IU
79-00-5	1,1,2-Trichloroethane	5	IU
110-75-8	Chloroethylvinylether	10	IU
71-43-2	Benzene	5	IU
10061-02-6	trans-1,3-Dichloropropene	5	IU
75-25-2	Bromoform	5	IU
108-10-1	4-Methyl-2-Pentanone	10	IU

1A-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ARDL, INC.

Contract: IDEM

TK2512

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 1062-1

Sample wt/vol: 5.0 (g/ml) mL

Lab File ID: >H4123

Level: (low/med) LOW

Date Received: 08/01/90

% Moisture: not dec. ---

Date Analyzed: 08/11/90

Column: (pack/cap) PACK

Dilution Factor: 1.0

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/L Q

123-63-7	Paraldehyde	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
108-38-3	m-Xylene	5	U
106-42-3	o & p-Xylene	5	U

VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

TK2512

Lab Name: ARDL, INC.

Contract: IDEM

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER Lab Sample ID: 1062-1

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: &gt;H4123

Level: (low/med) LOW Date Received: 8/01/90

Moisture: not dec. --- Date Analyzed: 8/11/90

Column: PACK Dilution Factor: 1.00000

## CONCENTRATION UNITS:

Number TICs found: 0

(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TK2513

Lab Name: ARDL, INC.

Contract: IDEM

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 1062-2

Sample wt/vol: 5.0 (g/ml) mL

Lab File ID: >H4124

Level: (low/med) LOW

Date Received: 08/01/90

% Moisture: not dec. ---

Date Analyzed: 08/11/90

Column: (pack/cap) PACK

Dilution Factor: 1.0

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/L

Q

74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	9	B
67-64-1	Acetone	10	U
107-02-8	2-Propenal	10	U
75-15-0	Carbon Disulfide	5	U
107-13-1	Acrylonitrile	10	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	3	J
109-99-9	Tetrahydrofuran	14	
540-59-0	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
76-13-1	1,1,2-Trichlorotrifluoroethane	3	JB
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
60-29-7	Ethyl Ether	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
141-78-6	Ethyl Acetate	10	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
110-75-8	Chloroethylvinyl ether	10	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U

1A-2

## VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ARDL, INC.

Contract: IDEM

TK2513

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER Lab Sample ID: 1062-2

Sample wt/vol: 5.0 (g/ml) mL Lab File ID: &gt;H4124

Level: (low/med) LOW Date Received: 08/01/90

% Moisture: not dec. --- Date Analyzed: 08/11/90

Column: (pack/cap) PACK Dilution Factor: 1.0

## CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/L

Q

123-63-7	Paraldehyde	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
108-38-3	m-Xylene	5	U
106-42-3	o & p-Xylene	5	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: ARDL, INC.

Contract: IDEM

TK2513

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 1062-2

Sample wt/vol: 5.0 (g/mL) mL

Lab File ID: >H4124

Level: (low/med) LOW

Date Received: 8/01/90

Moisture: not dec. ---

Date Analyzed: 8/11/90

Column: PACK

Dilution Factor: 1.00000

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TK2514

Lab Name: ARDL, INC.

Contract: IDEM

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 1062-3

Sample wt/vol: 5.0 (g/ml) mL

Lab File ID: >H4125

Level: (low/med) LOW

Date Received: 08/01/90

% Moisture: not dec. ---

Date Analyzed: 08/11/90

Column: (pack/cap) PACK

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane		10	IU
74-83-9	Bromomethane		10	IU
75-01-4	Vinyl Chloride		10	IU
75-00-3	Chloroethane		10	IU
75-09-2	Methylene Chloride		11	I B
67-64-1	Acetone		10	IU
107-02-8	2-Propenal		10	IU
75-15-0	Carbon Disulfide		5	IU
107-13-1	Acrylonitrile		10	IU
75-69-4	Trichlorofluoromethane		5	IU
75-35-4	1,1-Dichloroethene		5	IU
75-34-3	1,1-Dichloroethane		3	I J
109-99-9	Tetrahydrofuran		10	IU
540-59-0	trans-1,2-Dichloroethene		5	IU
67-66-3	Chloroform		5	IU
76-13-1	1,1,2-Trichlorotrifluoroethane		3	IJB
107-06-2	1,2-Dichloroethane		5	IU
78-93-3	2-Butanone		10	IU
60-29-7	Ethyl Ether		5	IU
71-55-6	1,1,1-Trichloroethane		5	IU
56-23-5	Carbon Tetrachloride		5	IU
141-78-6	Ethyl Acetate		10	IU
108-05-4	Vinyl Acetate		10	IU
75-27-4	Bromodichloromethane		5	IU
78-87-5	1,2-Dichloropropane		5	IU
10061-01-5	cis-1,3-Dichloropropene		5	IU
79-01-6	Trichloroethene		5	IU
124-48-1	Dibromochloromethane		5	IU
79-00-5	1,1,2-Trichloroethane		5	IU
110-75-8	Chloroethylvinylether		10	IU
71-43-2	Benzene		5	IU
10061-02-6	trans-1,3-Dichloropropene		5	IU
75-25-2	Bromoform		5	IU
108-10-1	4-Methyl-2-Pentanone		10	IU

1A-2

EPA SAMPLE NO.

TK2514

Lab Name: ARDL, INC.

Contract: IDEM

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER Lab Sample ID: 1062-3

Sample wt/vol: 5.0 (g/ml) mL Lab File ID: >H4125

Level: (low/med) LOW Date Received: 08/01/90

% Moisture: not dec. --- Date Analyzed: 08/11/90

Column: (pack/cap) PACK Dilution Factor: 1.0

**CONCENTRATION UNITS:**

## COMPOUND

(ug/L or ug/Kg)      ug/L

○

123-63-7	Paraldehyde	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
108-38-3	m-Xylene	5	U
106-42-3	o & p-Xylene	5	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: ARDL, INC. Contract: IDEM

TK2514

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER Lab Sample ID: 1062-3

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: >H4125

Level: (low/med) LOW Date Received: 8/01/90

Moisture: not dec. --- Date Analyzed: 8/11/90

Column: PACK Dilution Factor: 1.00000

CONCENTRATION UNITS:

Number TICs found: 0

(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ARDL, INC.

Contract: IDEM

TK2515

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 1062-4

Sample wt/vol: 5.0 (g/ml) mL

Lab File ID: >H4126

Level: (low/med) LOW

Date Received: 08/01/90

% Moisture: not dec. ---

Date Analyzed: 08/11/90

Column: (pack/cap) PACK

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:		
		(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane		10	I U
74-83-9	Bromomethane		10	I U
75-01-4	Vinyl Chloride		10	I U
75-00-3	Chloroethane		10	I U
75-09-2	Methylene Chloride		11	I B
67-64-1	Acetone		10	I U
107-02-8	2-Propenal		10	I U
75-15-0	Carbon Disulfide		5	I U
107-13-1	Acrylonitrile		10	I U
75-69-4	Trichlorofluoromethane		5	I U
75-35-4	1,1-Dichloroethene		5	I U
75-34-3	1,1-Dichloroethane		5	I U
109-99-9	Tetrahydrofuran		13	I
540-59-0	trans-1,2-Dichloroethene		5	I U
67-66-3	Chloroform		5	I U
76-13-1	1,1,2-Trichlorotrifluoroethane		3	I JB
107-06-2	1,2-Dichloroethane		5	I U
78-93-3	2-Butanone		10	I U
60-29-7	Ethyl Ether		5	I U
71-55-6	1,1,1-Trichloroethane		5	I U
56-23-5	Carbon Tetrachloride		5	I U
141-78-6	Ethyl Acetate		10	I U
108-05-4	Vinyl Acetate		10	I U
75-27-4	Bromodichloromethane		5	I U
78-87-5	1,2-Dichloropropane		5	I U
10061-01-5	cis-1,3-Dichloropropene		5	I U
79-01-6	Trichloroethene		5	I U
124-48-1	Dibromochloromethane		5	I U
79-00-5	1,1,2-Trichloroethane		5	I U
110-75-8	Chloroethylvinylether		10	I U
71-43-2	Benzene		5	I U
10061-02-6	trans-1,3-Dichloropropene		5	I U
75-25-2	Bromoform		5	I U
108-10-1	4-Methyl-2-Pentanone		10	I U

1A-2  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TK2515

Lab Name: ARDL, INC.

Contract: IDEM

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 1062-4

Sample wt/vol: 5.0 (g/ml) mL

Lab File ID: >H4126

Level: (low/med) LOW

Date Received: 08/01/90

% Moisture: not dec. ---

Date Analyzed: 08/11/90

Column: (pack/cap) PACK

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
123-63-7	Paraldehyde	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
108-38-3	m-Xylene	5	U
106-42-3	o & p-Xylene	5	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: ARDL, INC.

Contract: IDEM

TK2515

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 1062-4

Sample wt/vol: 5.0 (g/mL) mL

Lab File ID: >H4126

Level: (low/med) LOW

Date Received: 8/01/90

Moisture: not dec. ---

Date Analyzed: 8/11/90

Column: PACK

Dilution Factor: 1.00000

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	8.35	14.	
2.	Unknown	16.17	9.	
3.				
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ARDL, INC.

Contract: IDEM

TK2512

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER Lab Sample ID: 1062-1

Sample wt/vol: 1000.0 (g/ml) mL Lab File ID: &gt;B2833

Level: (low/med) LOW Date Received: 8/01/90

Moisture: not dec. --- dec. --- Date Extracted: 8/02/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 8/17/90

GPC Cleanup: (Y/N) N pH: --- Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:		
		(ug/L or ug/Kg)	ug/L	Q
110-86-1	Pyridine	10	IU	
67-75-9	n-Nitroso-Di-methylamine	10	IU	
109-06-8	2-Picoline	50	IU	
62-53-3	Aniline	10	IU	
108-95-2	Phenol	10	IU	
111-44-4	bis(-2-Chloroethyl)Ether	10	IU	
95-57-8	2-Chlorophenol	10	IU	
541-73-1	1,3-Dichlorobenzene	10	IU	
106-46-7	1,4-Dichlorobenzene	10	IU	
100-51-6	Benzyl Alcohol	10	IU	
95-50-1	1,2-Dichlorobenzene	10	IU	
95-48-7	2-Methylphenol	10	IU	
39638-32-9	bis(2-chloroisopropyl)Ether	10	IU	
106-44-5	4-Methylphenol	10	IU	
621-64-7	N-Nitroso-Di-n-Propylamine	10	IU	
67-72-1	Hexachloroethane	10	IU	
98-95-3	Nitrobenzene	10	IU	
78-59-1	Isophorone	10	IU	
88-75-5	2-Nitrophenol	10	IU	
105-67-9	2,4-Dimethylphenol	10	IU	
111-91-1	bis(-2-Chloroethoxy)Methane	10	IU	
65-85-0	Benzoic Acid	50	IU	
120-83-2	2,4-Dichlorophenol	10	IU	
120-82-1	1,2,4-Trichlorobenzene	10	IU	
91-20-3	Naphthalene	10	IU	
106-47-8	4-Chloroaniline	10	IU	
87-68-3	Hexachlorobutadiene	10	IU	
59-50-7	4-Chloro-3-Methylphenol	10	IU	
91-57-6	2-Methylnaphthalene	10	IU	
634-66-2	1,2,3,4-Tetrachlorotetzenzene	10	IU	
77-47-4	Hexachlorocyclopentadiene	10	IU	
88-06-2	2,4,6-Trichlorophenol	10	IU	
95-95-4	2,4,5-Trichlorophenol	50	IU	

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ARDL, INC.

Contract: IDEM

TH 2512

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER Lab Sample ID: 1062-1

Sample wt/vol: 1000.0 (g/ml) mL Lab File ID: >B2833

Level: (low/med) LOW Date Received: 8/01/90

Moisture: not dec. --- dec. --- Date Extracted: 8/02/90

Extraction: (Sepf/Cont/Sonc) SEPf Date Analyzed: 8/17/90

HPLC Cleanup: (Y/N) N pH: --- Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
91-58-7	2-Chloronaphthalene	10	1U
95-94-3	1,2,4,5-Tetrachlorobenzene	10	1U
95-80-7	Toluenediamine	50	1U
88-74-4	2-Nitroaniline	50	1U
131-11-3	Dimethyl Phthalate	10	1U
208-96-8	Acenaphthylene	10	1U
99-65-0	1,3-Dinitrobenzene	50	1U
606-20-2	2,6-Dinitrotoluene	10	1U
99-09-2	3-Nitroaniline	50	1U
83-32-9	Acenaphthene	10	1U
51-28-5	2,4-Dinitrophenol	50	1U
100-02-7	4-Nitrophenol	50	1U
132-64-9	Dibenzofuran	10	1U
121-14-2	2,4-Dinitrotoluene	10	1U
84-66-2	Diethylphthalate	10	1U
7005-72-3	4-Chlorophenyl-phenylether	10	1U
58-90-2	2,3,4,6-Tetrachlorophenol	50	1U
86-73-7	Fluorene	10	1U
100-01-6	4-Nitroaniline	50	1U
534-52-1	4,6-Dinitro-2-Methylphenol	50	1U
86-30-6	N-Nitrosodiphenylamine	10	1U
101-55-3	4-Bromophenyl-phenylether	10	1U
118-74-1	Hexachlorobenzene	10	1U
87-86-5	Pentachlorophenol	50	1U
85-01-8	Phenanthrene	10	1U
120-12-7	Anthracene	10	1U
86-74-8	Carbazole	50	1U
34-74-2	Di-N-Butylphthalate	10	1U
206-44-0	Fluoranthene	10	1U
129-00-0	Pyrene	10	1U
85-68-7	Butylbenzylphthalate	10	1U
91-94-1	3,3'-Dichlorobenzidine	20	1U
56-55-3	Benzo(a)Anthracene	10	1U

## SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

TK2512

Lab Name: ARDL, INC.

Contract: IDEM

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 1062-1

Sample wt/vol: 1000.0 (g/ml) mL

Lab File ID: &gt;B2833

Level: (low/med) LOW

Date Received: 8/01/90

Moisture: not dec. --- dec. ---

Date Extracted: 8/02/90

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 8/17/90

GPC Cleanup: (Y/N) N pH: ---

Dilution Factor: 1.0

## CONCENTRATION UNITS:

## COMPOUND

(ug/L or ug/Kg)

Q

218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	5	JB
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenzo(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

1F  
 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TK2512

Lab Name: ARDL, INC. Contract: IDEM

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER Lab Sample ID: 1062-1

Sample wt/vol: 1000.0 (g/mL) mL Lab File ID: >B2833

Level: (low/med) LOW Date Received: 8/01/90

% Moisture: not dec. --- dec. --- Date Extracted: 8/02/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 8/17/90

GPC Cleanup: (Y/N) N pH:--- Dilution Factor: 1.00000

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown alkane	17.25	7.	
2.	Unknown	19.92	2.	
3.	Hexanedioic acid, ester	28.10	140.	
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ARDL, INC.

Contract: TDEM

TK2513

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER Lab Sample ID: 1062-2

Sample wt/vol: 1000.0 (g/ml) mL Lab File ID: &gt;B2834

Level: (low/med) LOW Date Received: 8/01/90

% Moisture: not dec. --- dec. --- Date Extracted: 8/02/90

Extraction: (Sepf/Cont/Sonc) SEPf Date Analyzed: 8/17/90

GPC Cleanup: (Y/N) N pH: --- Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:		
		(ug/L or ug/Kg)	ug/L	Q
110-86-1	Pyridine		10	IU
67-75-9	n-Nitrosodimethylamine		10	IU
109-06-8	2-Picoline		50	IU
62-53-3	Aniline		10	IU
108-95-2	Phenol		10	IU
111-44-4	bis(-2-Chloroethyl)Ether		10	IU
95-57-8	2-Chlorophenol		10	IU
541-73-1	1,3-Dichlorobenzene		10	IU
106-46-7	1,4-Dichlorobenzene		10	IU
100-51-6	Benzyl Alcohol		10	IU
95-50-1	1,2-Dichlorobenzene		10	IU
95-48-7	2-Methylphenol		10	IU
39638-32-9	bis(2-chloroisopropyl)Ether		10	IU
106-44-5	4-Methylphenol		10	IU
621-64-7	N-Nitroso-Di-n-Propylamine		10	IU
67-72-1	Hexachloroethane		10	IU
98-95-3	Nitrobenzene		10	IU
78-59-1	Isophorone		10	IU
88-75-5	2-Nitrophenol		10	IU
105-67-9	2,4-Dimethylphenol		10	IU
111-91-1	bis(-2-Chloroethoxy)Methane		10	IU
65-85-0	Benzoic Acid		50	IU
120-83-2	2,4-Dichlorophenol		10	IU
120-82-1	1,2,4-Trichlorobenzene		10	IU
91-20-3	Naphthalene		10	IU
106-47-8	4-Chloroaniline		10	IU
87-68-3	Hexachlorobutadiene		10	IU
59-50-7	4-Chloro-3-Methylphenol		10	IU
91-57-6	2-Methylnaphthalene		10	IU
634-66-2	1,2,3,4-Tetrachlorobenzene		10	IU
77-47-4	Hexachlorocyclopentadiene		10	IU
88-06-2	2,4,6-Trichlorophenol		10	IU
95-95-4	2,4,5-Trichlorophenol		50	IU

1C  
SEMIVOLATILE ORGANICS ANALYSTS DATA SHEET

EPA SAMPLE NO.

TK2513

Lab Name: ARDL, INC.

Contract: IDEM

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER Lab Sample ID: 1062-2

Sample wt/vol: 1000.0 (g/ml) mL Lab File ID: &gt;B2834

Level: (low/med) LOW Date Received: 8/01/90

% Moisture: not dec. --- dec. --- Date Extracted: 8/02/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 8/17/90

GPC Cleanup: (Y/N) N pH: --- Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/L	Q
91-58-7	2-Chloronaphthalene		10	I U
95-94-3	1,2,4,5-Tetrachlorobenzene		10	I U
95-80-7	Toluenediamine		50	I U
88-74-4	2-Nitroaniline		50	I U
131-11-3	Dimethyl Phthalate		10	I U
208-96-8	Acenaphthylene		10	I U
99-65-0	1,3-Dinitrobenzene		50	I U
606-20-2	2,6-Dinitrotoluene		10	I U
99-09-2	3-Nitroaniline		50	I U
83-32-9	Acenaphthene		10	I U
51-28-5	2,4-Dinitrophenol		50	I U
100-02-7	4-Nitrophenol		50	I U
132-64-9	Dibenzofuran		10	I U
121-14-2	2,4-Dinitrotoluene		10	I U
84-66-2	Diethylphthalate		10	I U
7005-72-3	4-Chlorophenyl-phenylether		10	I U
58-90-2	2,3,4,6-Tetrachlorophenol		50	I U
86-73-7	Fluorene		10	I U
100-01-6	4-Nitroaniline		50	I U
534-52-1	4,6-Dinitro-2-Methylphenol		50	I U
86-30-6	N-Nitrosodiphenylamine		10	I U
101-55-3	4-Bromophenyl-phenylether		10	I U
118-74-1	Hexachlorobenzene		10	I U
87-86-5	Pentachlorophenol		50	I U
85-01-8	Phenanthrrene		10	I U
120-12-7	Anthracene		10	I U
86-74-8	Carbazole		50	I U
04-71-2	Di-N-Diethylphthalate		10	I U
206-44-0	Fluoranthene		10	I U
129-00-0	Pyrene		10	I U
85-68-7	Butylbenzylphthalate		10	I U
91-94-1	3,3'-Dichlorobenzidine		20	I U
56-55-3	Benzo(a)Anthracene		10	I U

1C-3

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TK2513

Lab Name: ARDL, INC.

Contract: IDEM

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

matrix: (soil/water) WATER Lab Sample ID: 1062-2

Sample wt/vol: 1000.0 (g/ml) mL Lab File ID: >B2834

Level: (low/med) LOW Date Received: 8/01/90

Moisture: not dec. --- dec. --- Date Extracted: 8/02/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 8/17/

GPC Cleanup: (Y/N) N pH: --- Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:  
 (ug/L or ug/Kg) ug/L Q

218-01-9	Chrysene		10	U
117-81-7	bis(2-Ethylhexyl)Phthalate		9	JB
117-84-0	Di-n-Octyl Phthalate		10	U
205-99-2	Benzo(b)Fluoranthene		10	U
207-08-9	Benzo(k)Fluoranthene		10	U
50-32-8	Benzo(a)Pyrene		10	U
193-39-5	Indeno(1,2,3-cd)Pyrene		10	U
53-70-3	Dibenzo(a,h)Anthracene		10	U
191-24-2	Benzo(g,h,i)Perylene		10	U

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: ARDL, INC. Contract: IDEM

TK2513

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER Lab Sample ID: 1062-2

Sample wt/vol: 1000.0 (g/mL) mL Lab File ID: >B2834

Level: (low/med) LOW Date Received: 8/01/90

% Moisture: not dec. --- dec. --- Date Extracted: 8/02/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 8/17/90

GPC Cleanup: (Y/N) N pH:--- Dilution Factor: 1.00000

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	4.44	4.	
2.	Unknown	4.88	2.	
3.	Unknown	5.48	19.	
4.	Unknown	6.93	2.	
5.	Unknown alkane	17.25	5.	
6.	Unknown	19.92	2.	
7.	Unknown	23.97	2.	
8.	Hexanedioic acid, ester	28.10	43.	
9.				
10.				
11.				
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TK2514RE

Lab Name: ARDL, INC.

Contract: IDEM

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER Lab Sample ID: 1062-3RE

Sample wt/vol: 1000.0 (g/ml) mL Lab File ID: >B2845

Level: (low/med) LOW Date Received: 8/01/90

% Moisture: not dec. --- dec. --- Date Extracted: 8/02/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 8/17/90

GPC Cleanup: (Y/N) N pH: --- Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
110-86-1	Pyridine	10	IU
67-75-9	n-Nitrosodimethylamine	10	IU
109-06-8	2-Picoline	50	IU
62-53-3	Aniline	10	IU
108-95-2	Phenol	10	IU
111-44-4	bis(-2-Chloroethyl)Ether	10	IU
95-57-8	2-Chlorophenol	10	IU
541-73-1	1,3-Dichlorobenzene	10	IU
106-46-7	1,4-Dichlorobenzene	10	IU
100-51-6	Benzyl Alcohol	10	IU
95-50-1	1,2-Dichlorobenzene	10	IU
95-48-7	2-Methylphenol	10	IU
39638-32-9	bis(2-chloroisopropyl)Ether	10	IU
106-44-5	4-Methylphenol	10	IU
621-64-7	N-Nitroso-Di-n-Propylamine	10	IU
67-72-1	Hexachloroethane	10	IU
98-95-3	Nitrobenzene	10	IU
78-59-1	Isophorone	10	IU
88-75-5	2-Nitrophenol	10	IU
105-67-9	2,4-Dimethylphenol	10	IU
111-91-1	bis(-2-Chloroethoxy)Methane	10	IU
65-85-0	Benzoic Acid	50	IU
120-83-2	2,4-Dichlorophenol	10	IU
120-82-1	1,2,4-Trichlorobenzene	10	IU
91-20-3	Naphthalene	10	IU
106-47-8	4-Chloroaniline	10	IU
87-68-3	Hexachlorobutadiene	10	IU
59-50-7	4-Chloro-3-Methylphenol	10	IU
91-57-6	2-Methylnaphthalene	10	IU
634-66-2	1,2,3,4-Tetrachlorobenzene	10	IU
77-47-4	Hexachlorocyclopentadiene	10	IU
88-06-2	2,4,6-Trichlorophenol	10	IU
95-95-4	2,4,5-Trichlorophenol	50	IU

1C  
SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TK2514RE

Lab Name: ARDL, INC.

Contract: IDEM

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER Lab Sample ID: 1062-3RE

Sample wt/vol: 1000.0 (g/ml) mL Lab File ID: >B2845

Level: (low/med) LOW Date Received: 8/01/90

% Moisture: not dec. --- dec. --- Date Extracted: 8/02/90

Extraction: (Sepf/Cont/Sonc) SEPf Date Analyzed: 8/17/90

GPC Cleanup: (Y/N) N pH: --- Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L Q		
91-58-7	2-Chloronaphthalene	10	I	U
95-94-3	1,2,4,5-Tetrachlorobenzene	10	I	U
95-80-7	Toluenediamine	50	I	U
88-74-4	2-Nitroaniline	50	I	U
131-11-3	Dimethyl Phthalate	10	I	U
208-96-8	Acenaphthylene	10	I	U
99-65-0	1,3-Dinitrobenzene	50	I	U
606-20-2	2,6-Dinitrotoluene	10	I	U
99-09-2	3-Nitroaniline	50	I	U
83-32-9	Acenaphthene	10	I	U
51-28-5	2,4-Dinitrophenol	50	I	U
100-02-7	4-Nitrophenol	50	I	U
132-64-9	Dibenzofuran	10	I	U
121-14-2	2,4-Dinitrotoluene	10	I	U
84-66-2	Diethylphthalate	10	I	U
7005-72-3	4-Chlorophenyl-phenylether	10	I	U
58-90-2	2,3,4,6-Tetrachlorophenol	50	I	U
86-73-7	Fluorene	10	I	U
100-01-6	4-Nitroaniline	50	I	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	I	U
86-30-6	N-Nitrosodiphenylamine	10	I	U
101-55-3	4-Bromophenyl-phenylether	10	I	U
118-74-1	Hexachlorobenzene	10	I	U
87-86-5	Pentachlorophenol	50	I	U
85-01-8	Phenanthrone	2	I	J
120-12-7	Anthracene	10	I	U
86-74-8	Carbazole	50	I	U
84-74-2	Di-N-Butylphthalate	10	I	U
206-44-0	Fluoranthene	6	I	J
129-00-0	Pyrene	6	I	J
85-68-7	Butylbenzylphthalate	10	I	U
91-94-1	3,3'-Dichlorobenzidine	20	I	U
56-55-3	Benzo(a)Anthracene	10	I	U

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ARDL, INC.

Contract: IDEM

TK2514RE

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER Lab Sample ID: 1062-3RE

Sample wt/vol: 1000.0 (g/ml) mL Lab File ID: &gt;B2845

Level: (low/med) LOW Date Received: 8/01/90

% Moisture: not dec. --- dec. --- Date Extracted: 8/02/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 8/17/90

GPC Cleanup: (Y/N) N pH: --- Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L

218-01-9	Chrysene	3	J
117-81-7	bis(2-Ethylhexyl)Phthalate	9	JB
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	2	J
207-08-9	Benzo(k)Fluoranthene	4	J
50-32-8	Benzo(a)Pyrene	3	J
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenzo(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TK2514RE

Lab Name: ARDL, INC. Contract: IDEM

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER Lab Sample ID: 1062-3RE

Sample wt/vol: 1000.0 (g/mL) mL Lab File ID: >B2845

Level: (low/med) LOW Date Received: 8/01/90

% Moisture: not dec. --- dec. --- Date Extracted: 8/02/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 8/17/90

GPC Cleanup: (Y/N) N pH:--- Dilution Factor: 1.00000

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/L

Number TICs found: 7

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	5.02	2.	
2.	Unknown	6.15	17.	
3.	Unknown	6.96	11.	
4.	Unknown alkane	17.23	6.	
5.	Unknown	19.90	4.	
6.	Unknown	25.20	4.	
7.	Hexanedioic acid, ester	28.07	6.	
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1E  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ARDL, INC.

Contract: TDEM

TK2515

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER Lab Sample ID: 1062-4

Sample wt/vol: 1000.0 (g/ml) mL Lab File ID: >B2838

Level: (low/med) LOW Date Received: 8/01/90

% Moisture: not dec. --- dec. --- Date Extracted: 8/02/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 8/17/90

GPC Cleanup: (Y/N) N pH: --- Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	ug/L
110-86-1	Pyridine	10	1U
67-75-9	n-Nitrosodimethylamine	10	1U
109-06-8	2-Picoline	50	1U
62-53-3	Aniline	10	1U
108-95-2	Phenol	10	1U
111-44-4	bis(-2-Chloroethyl)Ether	10	1U
95-57-8	2-Chlorophenol	10	1U
541-73-1	1,3-Dichlorobenzene	10	1U
106-46-7	1,4-Dichlorobenzene	10	1U
100-51-6	Benzyl Alcohol	10	1U
95-50-1	1,2-Dichlorobenzene	10	1U
95-48-7	2-Methylphenol	10	1U
39638-32-9	bis(2-chloroisopropyl)Ether	10	1U
106-44-5	4-Methylphenol	10	1U
621-64-7	N-Nitroso-Di-n-Propylamine	10	1U
67-72-1	Hexachloroethane	10	1U
98-95-3	Nitrobenzene	10	1U
78-59-1	Isophorone	10	1U
88-75-5	2-Nitrophenol	10	1U
105-67-9	2,4-Dimethylphenol	10	1U
111-91-1	bis(-2-Chloroethoxy)Methane	10	1U
65-85-0	Benzoic Acid	50	1U
120-83-2	2,4-Dichlorophenol	10	1U
120-82-1	1,2,4-Trichlorobenzene	10	1U
91-20-3	Naphthalene	10	1U
106-47-8	4-Chloroaniline	10	1U
87-68-3	Hexachlorobutadiene	10	1U
59-50-7	4-Chloro-3-Methylphenol	10	1U
91-57-6	2-Methylnaphthalene	10	1U
634-66-2	1,2,3,4-Tetrachlorobenzene	10	1U
77-47-4	Hexachlorocyclopentadiene	10	1U
88-06-2	2,4,6-Trichlorophenol	10	1U
95-95-4	2,4,5-Trichlorophenol	50	1U

IC  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.:

TK2515

Lab Name: ARDL, INC.

Contract: IDEM

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No : -----

Matrix: (soil/water) WATER Lab Sample ID: 1062-4

Sample wt/vol: 1000.0 (g/ml) mL Lab File ID: &gt;B2838

Level: (low/med) LOW Date Received: 8/01/90

Moisture: not dec. --- dec. --- Date Extracted: 8/02/90

Extraction: (Sepf/Cont/Sonc) SEPf Date Analyzed: 8/17/90

GPC Cleanup: (Y/N) N pH: --- Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		
				Q
91-58-7	2-Chloronaphthalene		10	I U
95-94-3	1,2,4,5-Tetrachlorobenzene		10	I U
95-80-7	Toluenediamine		50	I U
88-74-4	2-Nitroaniline		50	I U
131-11-3	Dimethyl Phthalate		10	I U
208-96-8	Acenaphthylene		10	I U
99-65-0	1,3-Dinitrobenzene		50	I U
606-20-2	2,6-Dinitrotoluene		10	I U
99-09-2	3-Nitroaniline		50	I U
83-32-9	Acenaphthene		10	I U
51-28-5	2,4-Dinitrophenol		50	I U
100-02-7	4-Nitrophenol		50	I U
132-64-9	Dibenzofuran		10	I U
121-14-2	2,4-Dinitrotoluene		10	I U
84-66-2	Diethylphthalate		10	I U
7005-72-3	4-Chlorophenyl-phenylether		10	I U
58-90-2	2,3,4,6-Tetrachlorophenol		50	I U
86-73-7	Fluorene		10	I U
100-01-6	4-Nitroaniline		50	I U
534-52-1	4,6-Dinitro-2-Methylphenol		50	I U
86-30-6	N-Nitrosodiphenylamine		10	I U
101-55-3	4-Bromophenyl-phenylether		10	I U
118-74-1	Hexachlorobenzene		10	I U
87-86-5	Pentachlorophenol		50	I U
85-01-8	Phenanthrene		10	I U
120-12-7	Anthracene		10	I U
86-74-8	Carbazole		50	I U
84-74-2	Di-N-Butylphthalate		10	I U
206-44-0	Fluoranthene		10	I U
129-00-0	Pyrene		10	I U
85-68-7	Butylbenzylphthalate		10	I U
91-94-1	3,3'-Dichlorobenzidine		20	I U
56-55-3	Benzo(a)Anthracene		10	I U

1C-3

SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ARDL, INC.

Contract: IDEM

TK2515

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER Lab Sample ID: 1062-4

Sample wt/vol: 1000.0 (g/ml) mL Lab File ID: >B2838

Level: (low/med) LOW Date Received: 8/01/90

% Moisture: not dec. --- dec. --- Date Extracted: 8/02/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 8/17/90

GPC Cleanup: (Y/N) N pH: --- Dilution Factor: 1.0

**CONCENTRATION UNITS:**

(ug/L or ug/Kg)    ug/L

Q

218-01-9	Chrysene		10	I U
117-81-7	bis(2-Ethylhexyl)Phthalate		.8	I JB
117-84-0	Di-n-Octyl Phthalate		10	I U
205-99-2	Benzo(b)Fluoranthene		10	I U
207-08-9	Benzo(k)Fluoranthene		10	I U
50-32-8	Benzo(a)Pyrene		10	I U
193-39-5	Indeno(1,2,3-cd)Pyrene		10	I U
53-70-3	Dibenzo(a,h)Anthracene		10	I U
191-24-2	Benzo(g,h,i)Perylene		10	I U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

TK2515

Lab Name: ARDL, INC. Contract: IDEM

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER Lab Sample ID: 1062-4

Sample wt/vol: 1000.0 (g/mL) mL Lab File ID: &gt;B2838

Level: (low/med) LOW Date Received: 8/01/90

Moisture: not dec. --- dec. --- Date Extracted: 8/02/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 8/17/90

HPLC Cleanup: (Y/N) N pH:--- Dilution Factor: 1.00000

Number TICs found: 7 CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	6.18	3.	
2.	Unknown	6.38	4.	
3.	Unknown	9.14	2.	
4.	Unknown alkane	17.25	5.	
5.	Unknown	19.92	5.	
6.	Unknown phthalate	23.04	2.	
7. 10544500	Sulfur, mol.	25.22	5.	
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1B  
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ARDL, INC.

Contract IDEM

| TK2516 |

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 1062-5

Sample wt/vol: 1000.0 (g/ml) mL

Lab File ID: >B2846

Level: (low/med) LOW

Date Received: 8/01/90

Moisture: not dec. --- dec. ---

Date Extracted: 8/02/90

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 8/17/90

GPC Cleanup: (Y/N) N pH: ---

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:		
		(ug/L or ug/Kg)	ug/L	Q
110-86-1	Pyridine		10	IU
67-75-9	n-Nitrosodimethylamine		10	IU
109-06-8	2-Picoline		50	IU
62-53-3	Aniline		10	IU
108-95-2	Phenol		19	I
111-44-4	bis(-2-Chloroethyl)Ether		10	IU
95-57-8	2-Chlorophenol		10	IU
541-73-1	1,3-Dichlorobenzene		10	IU
106-46-7	1,4-Dichlorobenzene		4	IJ
100-51-6	Benzyl Alcohol		10	IU
95-50-1	1,2-Dichlorobenzene		22	I
95-48-7	2-Methylphenol		10	IU
39638-32-9	bis(2-chloroisopropyl)Ether		10	IU
106-44-5	4-Methylphenol		10	IU
621-64-7	N-Nitroso-Di-n-Propylamine		10	IU
67-72-1	Hexachloroethane		10	IU
98-95-3	Nitrobenzene		10	IU
78-59-1	Isophorone		10	IU
88-75-5	2-Nitrophenol		10	IU
105-67-9	2,4-Dimethylphenol		10	IU
111-91-1	bis(-2-Chloroethoxy)Methane		10	IU
65-85-0	Benzoic Acid		50	IU
120-83-2	2,4-Dichlorophenol		10	IU
120-82-1	1,2,4-Trichlorobenzene		10	IU
91-20-3	Naphthalene		2	IJ
106-47-8	4-Chloroaniline		10	IU
87-68-3	Hexachlorobutadiene		10	IU
59-50-7	4-Chloro-3-Methylphenol		10	IU
91-57-6	2-Methylnaphthalene		10	IU
634-66-2	1,2,3,4-Tetrachlorobenzene		10	IU
77-47-4	Hexachlorocyclopentadiene		10	IU
88-06-2	2,4,6-Trichlorophenol		10	IU
95-95-4	2,4,5-Trichlorophenol		50	IU

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TK2516

Lab Name: ARDL, INC.

Contract: IDEM

Lab Code: ----- Case No.: 1062 SAS No.. ----- SDG No.: -----

Matrix: (soil/water) WATER Lab Sample ID: 1062-5

Sample wt/vol: 1000.0 (g/ml) mL Lab File ID: >B2846

Level: (low/med) LOW Date Received: 8/01/90

Moisture: not dec. --- dec. --- Date Extracted: 8/02/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 8/17/90

SPC Cleanup: (Y/N) N pH: --- Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:		
		(ug/L or ug/Kg)	ug/L	Q
91-58-7	2-Chloronaphthalene		10	I U
95-94-3	1,2,4,5-Tetrachlorobenzene		10	I U
95-80-7	Toluenediamine		50	I U
88-74-4	2-Nitroaniline		50	I U
131-11-3	Dimethyl Phthalate		10	I U
208-96-8	Acenaphthylene		10	I U
99-65-0	1,3-Dinitrobenzene		50	I U
606-20-2	2,6-Dinitrotoluene		10	I U
99-09-2	3-Nitroaniline		50	I U
83-32-9	Acenaphthene		10	I U
51-28-5	2,4-Dinitrophenol		50	I U
100-02-7	4-Nitrophenol		50	I U
132-64-9	Dibenzofuran		10	I U
121-14-2	2,4-Dinitrotoluene		10	I U
84-66-2	Diethylphthalate		10	I U
7005-72-3	4-Chlorophenyl-phenylether		10	I U
58-90-2	2,3,4,6-Tetrachlorophenol		50	I U
86-73-7	Fluorene		10	I U
100-01-6	4-Nitroaniline		50	I U
534-52-1	4,6-Dinitro-2-Methylphenol		50	I U
86-30-6	N-Nitrosodiphenylamine		10	I U
101-55-3	4-Bromophenyl-phenylether		10	I U
118-74-1	Hexachlorobenzene		10	I U
87-86-5	Pentachlorophenol		50	I U
85-01-8	Phenanthrene		10	I U
120-12-7	Anthracene		10	I U
86-74-8	Carbazole		50	I U
84-74-2	Di-N-Butylphthalate		10	I U
206-44-0	Fluoranthene		10	I U
129-00-0	Pyrene		10	I U
85-68-7	Butylbenzylphthalate		10	I U
91-94-1	3,3'-Dichlorobenzidine		20	I U
56-55-3	Benzo(a)Anthracene		10	I U

1C-3

SEMICOLVATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: ARDL, INC.

Contract: IDEM

TK2516

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER

Lab Sample ID: 1062-5

Sample wt/vol: 1000.0 (g/ml) mL

Lab File ID: >B2846

Level: (low/med) LOW

Date Received: 8/01/90

Moisture: not dec. --- dec. ---

Date Extracted: 8/02/90

Extraction: (Sepf/Cont/Sonc) SEPF

Date Analyzed: 8/17/90

GPC Cleanup: (Y/N) N pH: ---

Dilution Factor: 1.0

**CONCENTRATION UNITS:**

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	8	JB
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenzo(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TK2516

Lab Name: ARDL, INC. Contract: IDEM

Lab Code: ----- Case No.: 1062 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) WATER Lab Sample ID: 1062-5

Sample wt/vol: 1000.0 (g/mL) mL Lab File ID: >B2846

Level: (low/med) LOW Date Received: 8/01/90

% Moisture: not dec. --- dec. --- Date Extracted: 8/02/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 8/17/90

GPC Cleanup: (Y/N) N pH:--- Dilution Factor: 1.00000

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	4.74	16.	
2.	Unknown	5.35	11.	
3.	Unknown	6.70	5.	
4.	Unknown	7.63	37.	
5. 95476	Benzene, 1,2-dimethyl-	7.83	5.	
6.	Benzene, methylethyl-	9.10	8.	
7.	Unknown	9.74	5.	
8.	Unknown	10.29	5.	
9.	Unknown aromatic	12.18	4.	
10.	Benzene, tetramethyl-	12.89	5.	
11.	Benzene, tetramethyl-	12.96	7.	
12.	Unknown	13.30	3.	
13.	Unknown	13.40	3.	
14.	Unknown	13.51	7.	
15.	Unknown	16.01	3.	
16.	Unknown alkane	17.24	9.	
17.	Unknown	19.20	4.	
18.	Unknown	19.91	4.	
19.	Unknown	23.96	5.	
20.	Unknown	25.23	17.	
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1D  
PESTICIDE ORGANIC ANALYSIS

Customer Sample No \_\_\_\_\_

TK2512

Lab Name: ARDL, Inc.  
Lab Code: \_\_\_\_\_

Case No.: 1062

Contract: IDEM

SAS No.: \_\_\_\_\_

SDG No.: \_\_\_\_\_

Matrix (soil/water) : water  
Sample wt/vol : 1000 (g/mL) mL  
Level (low/med) :  
% Moisture (not dec): dec. -  
Extraction (Sepf/Cont/Sonic): Sepf  
GPC Cleanup ( Y/N ): No pH:

Lab Sample ID : 1062-1  
Lab File ID :  
Date Received : 08/01/90  
Date Extracted : 08/03/90  
Date Analyzed : 08/04/90  
Dilution Factor: 1.0

CAS No.	Compound	Concentration Units: ug/L (ug/L or ug/Kg)	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1013-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor 1016	0.50	U
11104-28-2	Aroclor 1221	0.50	U
11141-16-5	Aroclor 1232	0.50	U
53469-21-9	Aroclor 1242	0.50	U
12672-29-6	Aroclor 1248	0.50	U
11097-69-1	Aroclor 1254	1.0	U
11096-82-5	Aroclor 1260	1.0	U

1D  
PESTICIDE ORGANIC ANALYSIS

Customer Sample No.

TK2513

Lab Name: ARDL, Inc.	Contract: IDEM		
Lab Code: _____	SAS No.: _____	SDG No.: _____	
Matrix (soil/water) : water	Lab Sample ID : 1062-2		
Sample wt/vol : 1000 (g/mL) mL	Lab File ID :		
Level (low/med) :	Date Received : 08/01/90		
% Moisture (not dec): dec. -	Date Extracted : 08/03/90		
Extraction (Sepf/Cont/Sonc): Sepf	Date Analyzed : 08/04/90		
GPC Cleanup ( Y/N ) : No pH:	Dilution Factor: 1.0		
<b>CAS No.</b>	<b>Compound</b>	<b>Concentration Units: ug/L</b>	<b>Q</b>
<b>=====</b>			
319-84-6	alpha-BHC	0.05	
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1013-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor 1016	0.50	U
11104-28-2	Aroclor 1221	0.50	U
11141-16-5	Aroclor 1232	0.50	U
53469-21-9	Aroclor 1242	0.50	U
12672-29-6	Aroclor 1248	0.50	U
11097-69-1	Aroclor 1254	1.0	U
11096-82-5	Aroclor 1260	1.0	U

1D  
PESTICIDE ORGANIC ANALYSIS

Customer Sample No

TK2514

Lab Name: ARDL, Inc.	Contract: IDEM
Lab Code: _____	SAS No.: _____
Case No.: 1062	SDG No.: _____

Matrix (soil/water) : water	Lab Sample ID : 1062-3
Sample wt/vol : 1000 (g/mL) mL	Lab File ID :
Level (low/med) :	Date Received : 08/01/90
% Moisture (not dec): dec. -	Date Extracted : 08/03/90
Extraction (Sepf/Cont/Sonic): Sepf	Date Analyzed : 08/04/90
GPC Cleanup ( Y/N ): No	Dilution Factor: 1.0
pH:	

CAS No.	Compound	Concentration Units: ug/L (ug/L or ug/Kg)	Q
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319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1013-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor 1016	0.50	U
11104-28-2	Aroclor 1221	0.50	U
11141-16-5	Aroclor 1232	0.50	U
53469-21-9	Aroclor 1242	0.50	U
12672-29-6	Aroclor 1248	0.50	U
11097-69-1	Aroclor 1254	1.0	U
11096-82-5	Aroclor 1260	1.0	U

1D

PESTICIDE ORGANIC ANALYSIS

**Customer Sample No.**

TK2515

Lab Name: ARDL, Inc.

Lab Code:

Case No.: 1062

Contract: IDEM

SAS No.: \_\_\_\_\_

SDG No.:

Matrix (soil/water) : water  
Sample wt/vol : 1000 (g/mL) mL  
Level (low/med) :  
% Moisture (not dec): dec. -  
Extraction (Sepf/Cont/Sonc): Sepf  
GPC Cleanup ( Y/N ): No pH:

Lab Sample ID : 1062-4  
Lab File ID :  
Date Received : 08/01/90  
Date Extracted : 08/03/90  
Date Analyzed : 08/04/90  
Dilution Factor: 1.0

CAS No.

### Compound

Concentration Units: ug/L  
(ug/L or ug/Kg)

319-84-6	alpha-BHC	0.05
319-85-7	beta-BHC	0.05
319-86-8	delta-BHC	0.05
58-89-9	gamma-BHC (Lindane)	0.05
76-44-8	Heptachlor	0.05
309-00-2	Aldrin	0.05
1024-57-3	Heptachlor epoxide	0.05
959-98-8	Endosulfan I	0.05
60-57-1	Dieldrin	0.10
72-55-9	4,4'-DDE	0.10
72-20-8	Endrin	0.10
33213-65-9	Endosulfan II	0.10
72-54-8	4,4'-DDD	0.10
1013-07-8	Endosulfan sulfate	0.10
50-29-3	4,4'-DDT	0.10
72-43-5	Methoxychlor	0.50
53494-70-5	Endrin ketone	0.10
5103-71-9	alpha-Chlordane	0.50
5103-74-2	gamma-Chlordane	0.50
8001-35-2	Toxaphene	1.0
12674-11-2	Aroclor 1016	0.50
11104-28-2	Aroclor 1221	0.50
11141-16-5	Aroclor 1232	0.50
53469-21-9	<del>Aroclor 1242</del>	<del>0.50</del>
12672-29-6	Aroclor 1248	0.50
11097-69-1	Aroclor 1254	1.0
11096-82-5	Aroclor 1260	1.0

1D  
PESTICIDE ORGANIC ANALYSIS

Customer Sample No

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TK2516  
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Lab Name: ARDL, Inc.

Lab Code: \_\_\_\_\_ Case No.: 1062

Contract: IDEM

SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix (soil/water) : water  
 Sample wt/vol : 1000 (g/mL) mL  
 Level (low/med) :  
 % Moisture (not dec): dec. -  
 Extraction (Sepf/Cont/Sonc): Sepf  
 GPC Cleanup ( Y/N ): No pH:

Lab Sample ID : 1062-5  
 Lab File ID :  
 Date Received : 08/01/90  
 Date Extracted : 08/03/90  
 Date Analyzed : 08/04/90  
 Dilution Factor: 1.0

CAS No.	Compound	Concentration Units: ug/L (ug/L or ug/Kg)	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1013-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor 1016	0.50	U
11104-28-2	Aroclor 1221	0.50	U
11141-16-5	Aroclor 1232	0.50	U
53469-21-9	Aroclor 1242	0.50	U
12672-29-6	Aroclor 1248	0.50	U
11097-69-1	Aroclor 1254	1.0	U
11096-82-5	Aroclor 1260	1.0	U